

REMARKS

Reconsideration and allowance of the subject application is respectfully requested.

Claims 1-9 have been examined. Claims 1-12 are all the claims pending in the application.

Claim rejections -- 35 U.S.C. § 102

Claims 1 and 3 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Nakazawa, which is previously of record. Applicant respectfully traverses this rejection.

For example, claim 1 recites the feature wherein the chest tomographic image includes a low density range that is unaffected by the compression of the high density range. The Examiner maintains that this feature is met by Nakazawa at col. 14, lines 30-45, and specifically, by the equations 1-3 shown at the cited lines. Applicant respectfully disagrees with the Examiner's position.

First, at col. 14, lines 26-30, Nakazawa explains that a dynamic range of original radiographic image signal composed of digital data of each inputted pixel is compressed. In other words, each pixel of the input image is compressed, i.e., the whole original image is compressed, not just the high density range, as set forth by claim 1.

Second, at col. 15, lines 19-47, Nakazawa describes in more detail the dynamic range compression processing. Specifically, sampling is conducted by thinning out with a constant pixel interval in both X and Y directions and reduced original images composed of *a plurality of sample points* selected in the form of *lattice points* on an original radiographic image are formed. Col. 15, lines 27-34. Then, unsharpness mask signals Qus corresponding to *each sample point*

are obtained by calculating a simple mean of signal values of a plurality of sample points. Thereby, an image composed of the reduced unsharpness mask *signals* Qus is formed. Col. 15, lines 38-47. In other words, Nakazawa suggests that the unsharpness mask is used in order to localize compression to a given area. An analogy would be to the use of macroblocks in video compression. However, the unsharpness mask is used over the whole of the image to produce a compressed image in toto, rather than only compressing the high density range as set forth by claim 1.

Fig. 12 corroborates this interpretation of Nakazawa. In Fig. 12, it is shown that the plurality of sample points are present in a lattice covering the whole image, and that compression is carried out over the whole original image, rather than only on a high density range, as set forth by claim 1.

Accordingly, Applicant respectfully submits claim 1 is patentable over Nakazawa for these reasons. Claims 3 and 5 recite similar features, and therefore, are patentable for the same reasons.

Claim rejections -- 35 U.S.C. § 103

Claims 2 and 4 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nakazawa in view of Tsuchino, which is previously of record. Claim 5 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nakazawa in view of Wang, which is previously of record. Claims 6-9 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nakazawa in view of Wang in further view of Tsuchino. Applicant respectfully traverses these rejections.

Each of claims 2 and 4-9 recite the feature discussed above with respect to claim 1. Neither Wang nor Tsuchino cure the deficiencies of Nakazawa in this regards. Therefore, Applicant respectfully submits that claims 2 and 4-9 are patentable for the above-mentioned reasons.

With further regard to claims 2 and 4, these claims recite the feature of carrying out frequency enhancing processing on the image data having been subjected to dynamic range processing. The Examiner maintains that Tsuchino teaches this feature at col. 17, lines 12-20. (See August 22, 2005 OA). However, Applicant notes that that claim 1, as amended by the August 22, 2006 RCE, sets forth that a low density range is unaffected by compression. Therefore, since dynamic range processing is not carried out on the low density range, frequency enhancement is also not carried out on the low frequency range. Tsuchino contains no teaching relevant to this feature. Accordingly, Applicant respectfully submits that claims 2 and 4 are patentable over the Nakazawa and Tsuchino combination for this additional reason.

New claims

Applicant herein adds claims 10-12 in order to claim additional features of the invention. Claims 10-12 are patentable at least based on their respective dependencies.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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